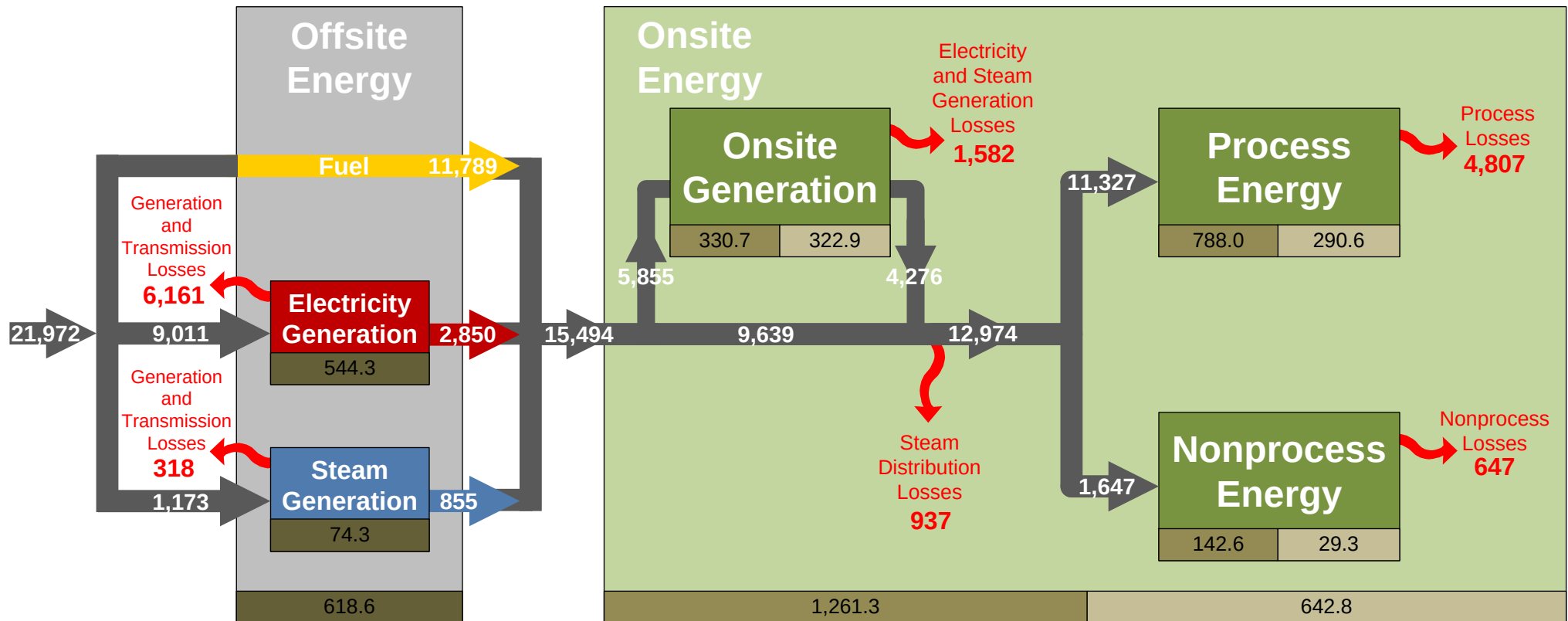


Manufacturing Energy and Carbon Footprint

Sector: All Manufacturing (NAICS 31-33)

Total Primary Energy Use: 21,972 TBtu
Total Combustion Emissions: 1,261 MMT CO₂e

Total Energy



Energy Use (TBtu = Trillion British Thermal Units)	Combustion Emissions (MMT CO ₂ e = Million Metric Tons Carbon Dioxide Equivalent)
All Energy	Offsite
Fuel	
Electricity	Total Onsite
Steam	
Losses	
	Total Emissions = Offsite Emissions + Onsite Emissions

67 Electricity Export

Energy use data source:	2006 MECS (with adjustments)
Last Revised:	October 2012
Notes:	Feedstock energy not included Energy values <0.5 TBtu shown as 0 Values represent aggregate data Offsite generation shown on net basis

Manufacturing Energy and Carbon Footprint

Sector: All Manufacturing (NAICS 31-33)

Onsite Energy Use: **15,494 TBtu**
Onsite Combustion Emissions: **643 MMT CO₂e**

Onsite Energy

Onsite Generation

Conventional Boilers

122.8	114.9
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CHP/ Cogeneration

206.0	206.0
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Other Electricity Generation*

1.9	1.9
-----	-----

330.7	322.9
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Steam Generation Losses **1,355**
Electricity Generation Losses **227**

Process Energy

Process Heating

376.2	261.3
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Process Cooling and Refrigeration

43.3	1.9
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Other Process Uses

25.4	11.2
------	------

Electro-Chemical

39.3	0.0
------	-----

Machine Drive

303.7	16.2
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Machine-Driven Systems

Pumps	627
Fans	346
Compressed Air	399
Materials Handling	308
Materials Processing	569
Other Systems	109

788.0	290.6
-------	-------

Nonprocess Energy

Facility HVAC

81.0	22.3
------	------

Facility Lighting

37.8	0.0
------	-----

Other Facility Support

13.3	1.8
------	-----

Onsite Transportation

5.6	4.2
-----	-----

Other Nonprocess

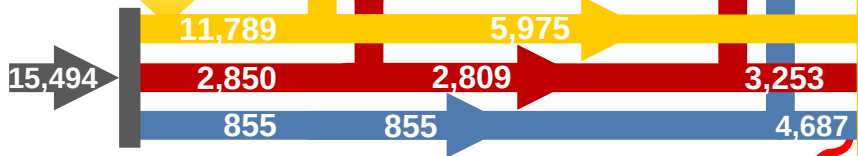
5.0	1.0
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142.6	29.3
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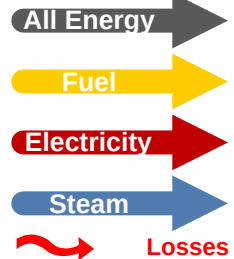
67 Electricity Export

Fuel Type	% of Total
Natural Gas	47%
Byproduct Fuels	37%
Coal	9%
Distillate and Residual Fuel Oils	3%
LPG and NGL	1%
Other Fuels	4%

Fuel Types



Energy Use (TBtu = Trillion British Thermal Units)



Combustion Emissions (MMT CO₂e = Million Metric Tons Carbon Dioxide Equivalent)

Total	Onsite
-------	--------

Total Emissions = Offsite Emissions + Onsite Emissions

Energy use data source: 2006 MECS (with adjustments)

Last Revised: October 2012

Notes:
Feedstock energy not included
Energy values <0.5 TBtu shown as 0
Values represent aggregate data
Offsite generation shown on net basis

* Onsite, renewable, non-combustion generation contributes 4 TBtu